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BACKGROUND

➤ Riedel thyroiditis is a rare chronic inflammatory disease of the thyroid gland.

➤ It is characterized by replacement of normal parenchyma with dense fibrotic tissue. Peripheral tissues might also be affected and this may cause airway obstruction, dysphagia, recurrent laryngeal nerve palsy and hypoparathyroidism.

➤ We report a patient with toxic adenoma previously treated with radioiodine and histopathologically confirmed Riedel thyroiditis.

CASE

➤ A 61 years old male patient was referred to our clinic because of subclinical hyperthyroidism. He did not have any obstructive symptoms.

➤ In physical examination, a 3x2 cm nodule was detected in the left thyroid lobe. Serum Thyroid Stimulating Hormone (TSH), free triiodothyronine (fT3), free tetraiodothyronine (fT4) and thyroglobulin (Tg) levels were 0.047 µIU/ml (0.4-4 µIU/ml), 2.04 pg/ml (1.57-4.71 pg/ml), 1.03 ng/dl (0.85-1.78 ng/dl) and 6.31 mg/dl (1.15-35 mg/dl), respectively. Antithyroid peroxidase, antithyroglobulin and thyroid stimulating antibodies were negative.

➤ Thyroid ultrasonography revealed a 15x20x28 mm isoechoic nodule located in superior and mid portions of the left thyroid lobe. The ultrasonographic features of the nodule were; a thin hypoechoic halo, cystic degeneration areas and macrocalcification.

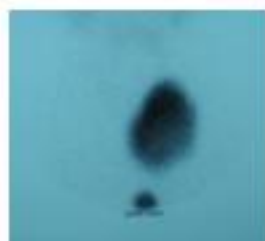


Figure 1. Active nodule in the left thyroid lobe and extranodular suppression of thyroid parenchyma

➤ Thyroid scintigraphy showed an active nodule with extranodular suppression of thyroid parenchyma (Figure 1). Radioiodine uptake measurement was 10% after 4 hours and 25% after 24 hours of I-131 administration.

➤ The nodule was evaluated with fine needle aspiration biopsy and cytology was found benign. The patient was treated with 20 mCi radioiodine for toxic adenoma. In the posttreatment follow-up, since nodule diameter is increased significantly after 6 months of the radioiodine treatment, total thyroidectomy was performed.

➤ In histopathological examination, there was marked fibrosis in stroma and some atrophic glands in thyroid tissue. Fibrosis was extending to the surrounding fat tissue and focal chronic inflammatory cells were observed around middle sized veins. With these findings, the patient was diagnosed to have Riedel thyroiditis.

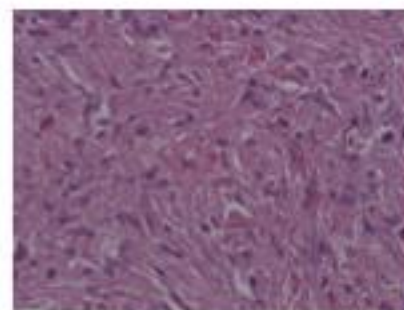


Figure 2. Marked fibrosis in thyroid parenchyma, lymphoid cells and tightened atrophic thyroid follicles : Riedel thyroiditis (H/E x 50).

CONCLUSION

➤ Riedel thyroiditis is a very rare disease of the thyroid gland. To our knowledge, this is the first case with coexistent toxic adenoma and Riedel thyroiditis reported in the literature.